

What is claimed:

1. A laser beam irradiation device comprising a main unit, a light source holder being provided rotatably with respect to said main unit, a light source being mounted on said light source holder, a cylindrical lens being mounted on said light source holder in such manner that a center line of said cylindrical lens is aligned with an optical axis of said light source, a prism holder being rotated around said center line of said cylindrical lens, an optical system being provided on said prism holder and for entering a laser beam which passes through said cylindrical lens to said cylindrical lens perpendicularly with respect to said center line of said cylindrical lens, wherein a fan-shaped laser beam is irradiated through said cylindrical lens and an irradiating direction of the fan-shaped laser beam can be changed by rotation of said light source holder.
2. A laser beam irradiation device according to claim 1, wherein there is provided a first motor, and said prism holder is rotated with respect to said light source holder by said first motor.
3. A laser beam irradiation device according to claim 2, wherein there is provided a second motor, and said light source holder is rotated with respect to said main unit by said second motor.
4. A laser beam irradiation device according to claim 1, wherein there is provided a first encoder, and a position in a rotating direction of said prism holder with respect to said light source holder can be detected by said first encoder.

5. A laser beam irradiation device according to claim 4, wherein there is provided a second encoder, and a position in a rotating direction of said light source holder with respect to said main unit can be detected by said second encoder.
6. A laser beam irradiation device according to claim 3, wherein there is provided a photodetection unit for receiving a light signal, and said first motor and said second motor are remotely driven by optical communication.
7. A laser beam irradiation device according to claim 6, wherein said photodetection unit comprises photodetection elements being arranged over total circumference, and a direction of the optical communication is detected based on the photodetecting condition of said photodetection elements.